

3.14 UTILITIES

This section addresses potential environmental effects associated with the increased demand for water, wastewater, stormwater, electricity and natural gas, and solid waste disposal services. The analysis includes a description of the existing environmental conditions, the methods used for assessment, the potential direct and indirect impacts of project implementation. The analysis is focused on those areas where demand for services may increase as a result of growth anticipated to result from future annexation and development. For discussions of drainage and groundwater, see Section 3.8, “Hydrology, Drainage, and Water Quality.” For a discussion of energy infrastructure and use, see Section 3.6, “Energy.”

Several responses to the notice of preparation were received from utility providers, including Sacramento County Water Agency (SCWA), Sacramento Regional County Sanitation District (Regional San) and Sacramento Area Sewer District (SASD), and Sacramento Municipal Utilities District (SMUD), which contained information about providing service to the SOIA area. In addition, the Environmental Council of Sacramento provided comments regarding water supply availability. As applicable, this information is addressed in the following section.

3.14.1 Environmental Setting

URBAN SERVICES BOUNDARY

The project site (or “SOIA area”) is located within the Sacramento County General Plan’s Urban Services Boundary (USB). The USB identifies the limits of the area where unincorporated urban growth is expected to occur beyond the 20-year General Plan planning period and indicates the ultimate boundary of the urban area in the unincorporated County. This boundary is based upon jurisdictional, natural, and environmental constraints to urban growth. The purpose of the USB is to allow for the planning of necessary infrastructure, such as sewer pipelines, which have service lives longer than 20 years (Sacramento County 2011 and SASD 2011:2-1).

Sacramento County adopted the USB to contain growth. Originally established with the 1993 County General Plan, it was refined as a part of the County’s 2011 General Plan Update. The existing USB extends just south of the City of Elk Grove’s boundaries along Kammerer Road and just southeast of the City along the 100-year floodplain. Several service providers have developed long-range infrastructure master plans based on the USB boundaries (LAFCo 2016:3.0-2).

WATER

Water is currently used on the project site both domestically and for the production of agriculture. The SOIA area is within SCWA’s service area, but SCWA does not currently provide water to the project site. Water is currently drawn from private wells. As described in Section 3.2, “Agricultural Resources,” the project site is currently cultivated in hay and used as grazing land, with viticulture associated with the residence near the intersection of Bilby Road and Bruceville Road. Average annual water use per acre of agricultural land on the project site could range from 1.8 acre-feet per acre for small grains like barley, oats, and rye to 3.8 acre-feet per acre for alfalfa (Johnson and Cody 2015). It is estimated that existing water use for the SOIA area ranges between 765 acre-feet and 1,615 acre-feet a year (afy), based on current satellite imagery of the SOIA area that shows approximately 425 acres in active agricultural production.

The project site is located in Zones 40 and 41 of SCWA’s service area, which have largely overlapping jurisdictional boundaries. Zone 40 is located in the central portion of the county and has traditionally been a largely rural, agricultural region. Zone 40 plans, acquires, constructs, and operates facilities for the conjunctive use of groundwater and surface water in the area of influence of the South Sacramento

Groundwater Basin. The project site is located in the South Service Area (SSA) of Zone 40, and unserved. The SSA is currently supplied by surface water from the Franklin Intertie and the Vineyard Surface Water Treatment Plant, groundwater from existing groundwater treatment plants (GWTPs) and some direct feed wells, and a small amount of recycled water. The capacities of all of the existing water supply facilities exceed the maximum daily demands (SCWA 2016a:5-1). Once planned facilities have been constructed by SCWA, they are operated and maintained by Zone 41, which retails the water to customers.

The *Zone 40 Water System Infrastructure Plan Update* (WSIP; SCWA 2016a) projects that total water demand in the service area, including water system losses, will be 102,400 acre-feet annually in 2052 (See Table 3.14-1). This is based on land use projections and estimated water demand factors based on land use type. At buildout, the SSA is projected to have 51,300 dwelling units and a population of 158,400, which would require an estimated 26,100 afy. Development of the project site was not considered in the cumulative buildout land use assumptions for the plan.

Table 3.14-1 Projected Zone 40 Water Demand

Service Area	Water Demand (acre-feet/year)		
	2015	2035	2052 (Buildout)
Zone 40 Study Area Total	38,700	71,800	102,400
South Service Area	17,100	26,100	26,100

Source: SCWA 2016a:3-22

Available water supply in Zone 40 consists of a combination of surface water and groundwater sources (see Table 3.14-2).

Table 3.14-2 Zone 40 Water Supply in Acre-Feet Per Year

Supply Source	Wet/Average Year	Drier Year	Driest Year	Long-term Average
Surface Water	89,300	43,350	32,100	71,858
Groundwater	34,900	64,900	71,900	46,260
Recycled Water	3,300	3,300	3,300	3,300
Total	127,500	111,550	107,300	121,418

Source: SCWA 2016a:4-11

SCWA current surface water supply consists of the following sources:

- ▲ Central Valley Project Water (Public Law 101-514): SCWA has a water-service contract pursuant to Public Law 101-514 (referred to as “Fazio water”) that provides a water supply of 22,000 afy, with 15,000 afy allocated to SCWA and 7,000 afy allocated to the City of Folsom.
- ▲ Sacramento Municipal Utility District (SMUD) Water (SMUD I and II): SCWA has entered into two three-party agreements with the City of Sacramento and SMUD for a total of 30,000 afy from SMUD’s existing Central Valley Water contract.
- ▲ Appropriative Water: The State Water Resources Control Board (SWRCB) appropriates water from the American River and Sacramento River to SCWA under Permit 21029. The amount of appropriated water available could range up to 71,000 afy in wet years primarily during the winter months.

- ▲ City of Sacramento's American River Place of Use Agreement: The City of Sacramento provides wholesale American River water to SCWA for use in a portion of SCWA 2030 Study Area that lies within the City of Sacramento's American River POU. The estimated long-term average volume of water that would be used by SCWA within this Place of Use Agreement would be approximately 9,300 afy. (SCWA 2016b)

Existing water supply facilities near the project site include transmission pipelines (i.e., pipes that are 16 inches or larger) in Bilby Road and Willard Parkway, and the Poppy Ridge well and GWTP near the intersection of Bruceville Road and Poppy Ridge Road north of the project site that is planned for expansion. The nearby Franklin GWTP is also planned for eventual expansion and a pipeline is proposed to extend south along Bruceville Road adjacent to the eastern boundary of the project site under Phases 2 and 3 of the WSIP. The WSIP does not identify any new facilities within the SOIA area (SCWA 2016a).

Groundwater

The Sacramento Central Groundwater Authority (SCGA) was formed in 2006 through a joint powers agreement signed by the Cities of Elk Grove, Folsom, Rancho Cordova, and Sacramento, and the County of Sacramento. SCGA was formed for several purposes including maintaining the long-term sustainable yield of the Central Basin, managing the use of groundwater in the Central Basin, and facilitating the implementation of a conjunctive use program. The Central Basin is defined as the area bounded on the west by the Sacramento River, on the north by the American River, on the south by the Cosumnes River, and on the east by the foothills of the Sierra Nevada Range. The Central Basin's boundaries are similar to the boundaries of the South American subbasin. The Water Forum defined the long-term sustainable average annual yield of the Central Basin to be 273,000 afy. Zone 40 lies within a portion of the Central Basin (SCWA 2016a). Annual groundwater pumping of the South American subbasin by SCWA ranged from 34,626 afy in 2011 to 24,652 afy in 2015 (SCWA 2016b).

The Sacramento Central Groundwater Authority's South American Subbasin Alternative Submittal (Sacramento Central Groundwater Authority 2016) evaluated the change in groundwater storage in the Central Basin from 2005 to 2015. The total annual average change in storage over the 2005 to 2015 time period was estimated to be approximately 4,000 afy. This is representative of a basin in equilibrium where natural recharge from deep percolation, hydraulically connected rivers, and boundary subsurface inflows are keeping up with active pumping and changes in hydrology. Over the 10-year period, the basin continues to recover at its deepest points and management is now focused on working with affected agencies to keep water from leaving the basin, and improving basin conditions where and when possible, in accordance with the Central Sacramento County Groundwater Management Plan (Central Sacramento County GMP) (Sacramento Central Groundwater Authority 2016).

Groundwater storage in the recharge area underlying Elk Grove and surrounding areas is continuing to increase from recharge from conjunctive use and surface water use expansion, increased use of recycled water, and water conservation. The increase in storage in this portion of the subbasin has filled the long-term cone of depression and has eroded the ridge of higher groundwater separating it from the Cosumnes Subbasin (Sacramento Central Groundwater Authority 2016). Groundwater extraction has been within the Water Forum Agreement's sustainable yield from 2005 (252,984 afy) to 2015 (217,111 afy). The least amount of groundwater extraction over this period occurred in 2011 (202,324 afy) and the most occurred in 2008 (260,200 afy). The average groundwater extraction during the drought years (2011-2015) was approximately 219,000 afy (Sacramento Central Groundwater Authority 2016).

The existing groundwater facilities in the SSA have the capacity to supply all the current maximum day demand. In addition, GWTPs proposed in the WSIP would provide a maximum day groundwater supply capacity that exceeds the SSA's projected buildout maximum day demand (SCWA 2016a)

Recycled Water

The Sacramento Regional County Sanitation District currently provides SCWA and CCSD with recycled water for landscape irrigation. In 2015, SCWA utilized 575 acre-feet of recycled water.

WASTEWATER

The SOIA area is not served by a municipal wastewater service provider. Rather, sanitary service is currently provided by on-site septic systems.

Sacramento Area Sewer District

SASD provides local wastewater collection and conveyance services and infrastructure throughout the Sacramento region. SASD maintains and provides wastewater collection and conveyance from the local residences and businesses in the urbanized, unincorporated areas of Sacramento County; the cities of Elk Grove, Rancho Cordova, and Citrus Heights; portions of the city of Sacramento; and a very small area in the city of Folsom. The service area covers approximately 270 square miles and has a population of over 750,000. The smaller local pipelines that SASD operates connect to the larger regional interceptors maintained by Regional San.

The project site is not within SASD's existing service area. However, the Sacramento County General Plan Urban Services Boundary (USB) constitutes the sphere of influence (SOI) for the SASD. The existing residential areas to the north and west of the project site are within the SASD service area and there is existing infrastructure in the area. Further, the project site is within the study area for SASD's 2010 Sewer System Capacity Plan. For areas outside of the urbanized area, the 2010 Sewer System Capacity Plan assumed that potential densities could be similar to those projected for near-term urban development. Therefore, an average density of 6 equivalent single family dwelling units per acre was assumed for these areas, except for areas designated as open spaces.

Sacramento Regional County Sanitation District

The Sacramento Regional County Sanitation District (Regional San) provides wastewater conveyance and treatment services to residential, commercial, and industrial customers in portions of unincorporated Sacramento County; the cities of Citrus Heights, Elk Grove, Folsom, Rancho Cordova, Sacramento, and West Sacramento; and the communities of Courtland and Walnut Grove. Wastewater travels through a system comprised of 169 miles of interceptor pipelines, 46 miles of force mains (pressurized pipes), and 11 pump stations before it reaches the Sacramento Regional Wastewater Treatment Plant (SRWTP). There, it is treated and discharged to the Sacramento River. In normal weather years, Regional San treats an average of approximately 150 million gallons of wastewater each day (mgd; Regional San 2015). Regional San's 2013 Interceptor Sequencing Study designated the project site as part of the Elk Grove SOI included in the study area. The USB constitutes the SOI for Regional San.

Sacramento Regional Wastewater Treatment Plant

Wastewater flows collected from Regional San's interceptors are ultimately transported into the SRWTP. The SRWTP is located west of Elk Grove and is owned and managed by Regional San. Currently, the SRWTP has a National Pollutant Discharge Elimination System (NPDES) permit issued by the Central Valley Regional Water Quality Control Board (RWQCB) for discharge of up to 181 mgd average dry-weather flow of treated effluent into the Sacramento River. The SRWTP has the potential for expansion to 218 mgd. As of 2015, the SRWTP receives and treats an average of 150 mgd each day and the SRWTP discharge constituents are below permitted discharge limits specified in the NPDES permit (Regional San 2015).

Regional San is upgrading the SRWTP. The upgrade, known as the EchoWater Project, must be built by 2021–2023 to meet new water quality requirements that were issued by the Central Valley RWQCB as part of Regional San's discharge permit.

The design of the SRWTP and collection system was balanced to have SRWTP facilities accommodate some of the wet-weather flows, while minimizing idle SRWTP facilities during dry weather. The SCRSD designed the SRWTP to accommodate some wet-weather flows with the storage basins and interceptors designed to accommodate the remaining wet weather flows. Regional San must complete construction of the new treatment facilities to achieve the permit and settlement requirements by May 2021 for ammonia and

nitrate and by May 2023 for compliance with pathogen requirements. The upgrade will not, however, result in a net increase in the permitted capacity of the SRWTP (Regional San 2015).

Regional San expects per capita consumption to fall 25 percent over the next 20 or more years through the ongoing installation and use of water meters, as well as compliance with recent conservation mandates. As such, substantial additional conservation is expected throughout the service area, allowing the existing 181 mgd average dry-weather flow capacity to be adequate for at least 40 more years (Regional San 2014:6-2).

SOLID WASTE DISPOSAL

The SOIA area is currently within the service boundaries of the Sacramento County Department of Waste Management and Recycling. Sacramento County has contracted out residential solid waste services (i.e., solid waste management and recycling) in the unincorporated area south of Calvine Road, which includes the SOIA area, to Central Valley Waste Services (dba Waste Management), a private commercial hauler. Service is provided by mostly private franchised hauling companies for the commercial and industrial customers. The private hauling companies are under a franchise agreement with the Sacramento Regional Solid Waste Authority to perform collection and disposal at properties and convey waste to landfills and recycling stations, as appropriate (LAFCo 2016).

Residential solid waste services in the City of Elk Grove are provided by Republic Services (formally known as Allied Waste) under an exclusive franchise agreement. Services include collection of all solid waste, residential recyclables, used motor oil and yard trimmings, along with other services. The City of Elk Grove has contracted out commercial solid waste services to a variety of commercial haulers. All commercial waste haulers operating, conducting business, or providing solid waste services within the City of Elk Grove boundaries must register with the City and post a registration decal in their vehicles to operate. Businesses may select which commercial hauler to utilize for solid waste services (LAFCo 2016:4.0-20).

Commercial solid waste collected by private franchised haulers in Sacramento County and the City of Elk Grove is disposed of at various facilities – primarily Kiefer Landfill, L and D Landfill, and Yolo County Landfill. Table 3.14-3 shows the maximum capacity, remaining capacity, and closure date of these landfills. In 2015, the daily waste generation rate was 4.2 pounds per person and 13.9 pounds per employee in unincorporated Sacramento County and the daily waste generation rate was 2.7 pounds per person and 13.2 pounds per employee in the City of Elk Grove (CalRecycle 2015).

Table 3.14-3 Capacity of Area Landfills

Landfill Name	Maximum Capacity	Remaining Capacity	Estimated Closure Date
Keifer Landfill	117,400,000 CY	112,900,000 CY (as of 2005)	2064
L and D Landfill	6,031,055 CY	4,100,000 CY (as of 2005)	2023
Yolo County Central Landfill	49,035,200 CY	Not reported	2081

Source: CalRecycle 2017

The City of Elk Grove also operates the Special Waste Collection Center at 9255 Disposal Lane in Elk Grove. The Special Waste Collection Center program helps residents dispose of or recycle their residential and business hazardous waste properly. Elk Grove residents and participating jurisdictions may drop off a full range of household hazardous wastes, which are reused, recycled, processed for energy recovery, or stabilized for proper disposal to achieve zero waste being landfilled.

3.14.2 Regulatory Framework

The reader is referred to Section 3.8, “Hydrology and Water Quality,” for a discussion of applicable state and local groundwater regulations and plans.

FEDERAL

Resource Recovery and Conservation Act

The Resource Recovery and Conservation Act of 1976, Subtitle D focuses on state and local governments as the primary planning, regulating, and implementing entities for the management of nonhazardous solid waste, such as household garbage and nonhazardous industrial solid waste. To promote the use of safer units for solid waste disposal, Subtitle D provides regulations for the generation, transportation, and treatment, storage, or disposal of hazardous wastes. EPA developed federal criteria for the proper design and operation of municipal solid waste landfills and other solid waste disposal facilities, but state and local governments are the primary planning, permitting, regulating, implementing, and enforcement agencies for management and disposal subject to approval by EPA. EPA approved the State of California’s program on October 7, 1993.

STATE

California Water Code

Water Code Section 10910 et seq. defines the projects for which the preparation of a Water Supply Assessment (WSA) is required as well as the lead agency’s responsibilities related to the WSA. The Water Code also clarifies the roles and responsibilities of the lead agency under CEQA and of the water supplier with respect to describing current and future supplies compared to current and future demands. A WSA is required for:

- ▲ A proposed residential development of more than 500 dwelling units;
- ▲ A proposed shopping center or business establishment employing more than 1,000 persons or having more than 250,000 square feet of floor space;
- ▲ A proposed hotel or motel, or both, having more than 500 rooms;
- ▲ A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area;
- ▲ A mixed-use development that includes one or more of the uses described above;
- ▲ A development that would demand a volume of water equivalent to or greater than the volume of water required by a 500-dwelling unit project; and
- ▲ For lead agencies with fewer than 5,000 water service connections, any new development that would increase the number of water service connections in the service area by 10 percent or more.

Under Section 10910 of the Water Code, the lead agency must identify the affected water supplier and ask the supplier whether the new demands associated with the project are included in the supplier’s Urban Water Management Plan. If the Urban Water Management Plan includes the demands, it may be incorporated by reference in the WSA. If there is no public water system to serve the project, the lead agency must prepare the WSA.

California Model Water Efficient Landscape Ordinance

The California Model Water Efficient Landscape Ordinance (MWELO) sets restrictions on outdoor landscaping. Because both Sacramento County and the City of Elk Grove are “local agencies” under the MWELO, they must require project applicants to prepare plans consistent with the requirements of the MWELO for their review and approval. The MWELO was most recently updated by the Department of Water Resources and approved by the California Water Commission on July 15, 2015. All provisions became effective on February 1, 2016. The revisions, which apply to new construction with a landscape area greater than 500 square feet, reduced the allowable coverage of high-water-use plants to 25 percent of the landscaped area. The MWELO also requires use of a dedicated landscape meter on landscape areas for residential landscape areas greater than 5,000 square feet or non-residential landscape areas greater than 1,000 square feet, and requires weather-based irrigation controllers or soil-moisture based controllers or other self-adjusting irrigation controllers for irrigation scheduling in all irrigation systems.

California Green Building Standards Code

Chapter 4, Division 4.3 of the 2016 California Green Building Standards Code (CALGreen) requires conservation of water used indoors, outdoors, and in wastewater conveyance associated with residential land use. These include requiring the installation of water conserving plumbing fixtures and fittings, and requirements for outdoor potable water use in land use areas consistent with the MWELO. Division 4.4 relates to material conservation and resource efficiency for residential construction. This includes requirements for waste diversion and recycling of construction debris and building operation and maintenance. Similarly, Chapter 5, Division 5.3 includes standards for indoor and outdoor water use associated with non-residential land uses. Division 5.4 relates to material conservation and resource efficiency for residential construction. This includes requirements for waste diversion and recycling of construction debris and building operation and maintenance.

Cortese-Knox-Hertzberg Local Government Reorganization Act

The Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 establishes procedures for local government changes of organization, including annexations. The act addresses amendments to spheres of influence (California Government Code Sections 56425 – 56434). Pursuant to Section 56430, LAFCo must conduct a review of the municipal services provided in the county or other appropriate area to prepare and to update spheres of influence. In conducting a service review, the LAFCo must comprehensively review all of the agencies that provide services within the designated geographic area before, or in conjunction with, an action to establish or update a sphere of influence. Government Code Section 56653 requires that prior to a local agency submitting an application to LAFCo for a change of organization (annexation into the City) the local agency must submit a plan for providing services within the affected territory.

LOCAL

The project site lies within the jurisdictional boundaries of Sacramento County; therefore, the County’s policies, as well as the Sacramento LAFCo’s policies, would apply. Furthermore, if the SOIA is approved, it may lead to annexation to the City of Elk Grove. Thus, applicable policies of the City of Elk Grove’s General Plan are described below.

Sacramento County Water Agency Planning Documents

The 2005 Water Supply Master Plan presents recommendations to meet future water demands in Zone 40 through the year 2030 with a regional conjunctive use program balancing the use of groundwater, surface water, and recycled water supplies. Subsequently, SCWA has developed the 2006 Central Sacramento County Groundwater Management Plan, the 2010 Urban Water Management Plan, and the 2016 WSIP.

Sacramento LAFCo Policies, Standards, and Procedures

Sacramento LAFCo Policies, Standards, and Procedures require that any proposed annexations are consistent with applicable service elements of the Sphere of Influence of the City and any affected agencies, and that adequate services be provided within the time frame needed for the inhabitants of the annexation

area (Section I, Standard Number 4). A Municipal Services Review (MSR) is prepared to meet these requirements. In addition, LAFCo requires that any annexation provides for the lowest cost and highest quality of urban services (Section I, Standard Number 5). Where local policies may be silent, the Commission will make findings pursuant to the Cortese-Knox-Hertzberg Local Government Reorganization Act. A draft MSR has been prepared for this project.

Sacramento County General Plan

The following policies from the Sacramento County General Plan would apply to the SOIA.

- ▲ **Policy PF-1:** New water facilities shall be planned to minimize impacts to in-stream water flow in the Sacramento and American Rivers.
- ▲ **Policy PF-2:** Municipal and industrial development within the Urban Service Boundary but outside of existing water purveyors' service areas shall be served by either annexation to an existing public agency providing water service or by creation or extension of a benefit zone of the SCWA.
- ▲ **Policy PF-3:** Public water agencies shall comply with General Plan policies prior to annexation of additional service areas.
- ▲ **Policy PF-9:** Design trunk and interceptor systems to accommodate flows generated by full urban development at urban densities within the ultimate service area. System design may take into consideration land that cannot be developed for urban uses due to long-term circumstances including but not limited to conservation easements, floodplains, public recreation areas etc. This could include phased construction where deferred capital costs are appropriate.
- ▲ **Policy PF-87:** Cooperate with local agencies in the locating and design of new transmission towers in urban areas in a manner that minimizes visual and environmental impacts, including impacts to historic buildings and view sheds.
- ▲ **Policy PF-100:** Galvanize-coated steel poles should be used where practical.
- ▲ **Policy PF-101:** Route new overhead sub-transmission lines within existing transmission line corridors, along railroad tracks, or major roadways. In an effort to reduce the visual impact of new lines combine circuits on existing 69 kV power poles, wherever feasible.

City of Elk Grove General Plan

The following policies from the City of Elk Grove's General Plan would apply to future annexation and development of the project site.

- ▲ **Policy PF-1:** Except when prohibited by state law, the City shall require that sufficient capacity in all public services and facilities will be available on time to maintain desired service levels and avoid capacity shortages, traffic congestion, or other negative effects on safety and quality of life.
- ▲ **Policy PF-2:** The City shall coordinate with outside service agencies—including water and sewer providers, the Elk Grove Community Services District, and the Elk Grove Unified School District—during the review of plans and development projects.
- ▲ **Policy PF-3:** Water supply and delivery systems shall be available in time to meet the demand created by new development, or shall be assured through the use of bonds or other sureties to the City's satisfaction.
- ▲ **Policy PF-7:** The City shall require that water flow and pressure be provided at sufficient levels to meet domestic, commercial, industrial, and firefighting needs.

- ▲ **Policy PF-8:** Sewage conveyance and treatment capacity shall be available in time to meet the demand created by new development, or shall be assured through the use of bonds or other sureties to the City's satisfaction.
- ▲ **Policy PF-14:** Independent community sewer systems may not be established for new development.
- ▲ **Policy PF-21:** New development shall fund its fair share portion of its impacts to all public facilities and infrastructure as provided for in state law.
- ▲ **Policy CAQ-27:** The City shall promote energy conservation measures in new development to reduce on-site emissions and power plant emissions. The City shall seek to reduce the energy impacts from new residential and commercial projects through investigation and implementation of energy efficiency measures during all phases of design and development.

3.14.3 Environmental Impacts and Mitigation Measures

ANALYSIS METHODOLOGY

A SOI indicates the probable physical boundaries and service area of a City over the next 20 years. This analysis is based on the assumption that the SOIA would lead to the eventual annexation and development of the project site in a manner generally consistent with the proposed conceptual land use scenario. As such, the calculations of utility demand are based on the development potential identified in Chapter 2, "Project Description." The planning of future land uses would be part of the pre-zoning associated with any future annexation of lands. LAFCo has prepared a draft MSR to determine if municipal service providers can feasibly finance and extend infrastructure, services, and facilities into the SOIA area to adequately serve projected future growth within the next 20 years with no adverse impact to current ratepayers, infrastructure, services, and/or facilities. This review has been used to inform the following analysis. If the SOIA is approved, any future annexation must be consistent with this MSR (LAFCo 2016).

THRESHOLDS OF SIGNIFICANCE

The following thresholds are used in determining the potential significance of project impacts based on the sample questions provided in Appendix G of the State CEQA Guidelines.

Impacts are considered significant if the project would:

- ▲ Fail to meet applicable wastewater treatment requirements;
- ▲ Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- ▲ Require new or expanded entitlements for adequate water supply;
- ▲ Result in a determination by the wastewater treatment provider that serves or may serve the project site that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments;
- ▲ Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs; or
- ▲ Fail to comply with federal, state, and local statutes and regulations related to solid waste.

ISSUES NOT EVALUATED FURTHER

Wastewater Treatment Requirements

Future development of the SOIA area would convey wastewater to the SRWTP, which operates under waste discharge requirements issued by RWQCB. Because the SRWTP is regulated by RWQCB and would be required to ensure that its wastewater discharge to the Sacramento River meets all applicable water quality requirements, the project would not result in wastewater that would exceed the requirements of the RWQCB. This impact is not discussed further. The potential to overburden the existing wastewater treatment facility, requiring new or expanded facilities to meet applicable treatment requirements, is discussed below.

Compliance with Solid Waste Regulations

Future development of the SOIA area would generate solid waste associated with domestic use (e.g., food waste, paper, limited medical-related waste) and construction-related waste from grading, clearing, and erecting buildings. Construction and operation of the future development in the SOIA area would follow all relevant federal, state, and local statutes and regulations associated with collection and disposal of waste generated at the site. Thus, there would be no impact related to violation of solid waste laws and regulations and this topic is not discussed further.

IMPACT ANALYSIS

Impact 3.14-1: Require or result in the construction of new or expanded water or wastewater treatment facilities, the construction of which could cause significant environmental effects.

The SOIA would not directly require or result in the construction of new utilities. Rather, the SOIA and associated conceptual land use plan informs the long-term planning of applicable utility providers. If determined to be necessary, off-site improvements to water or wastewater treatment or conveyance facilities would be the responsibility of the utility and would be analyzed by the utility provider under separate environmental review. Physical environmental impacts from construction or operation of off-site improvements could remain significant after implementation of mitigation (i.e., significant and unavoidable) or no feasible mitigation may be available to fully reduce impacts to a less-than-significant level. This impact would be **significant**.

The SOIA would not directly require or result in the construction of new utilities. Rather, by amending the City of Elk Grove's SOI and providing a conceptual land use plan, the project would inform the long-term planning of applicable utility providers. Through this process, any necessary infrastructure upgrades could be planned and funded prior to annexation or subsequent development.

The following analysis considers the potential for the project site to increase demand for water or wastewater services such that new or expanded facilities would be required if the project site is annexed and developed in a manner consistent with the conceptual land use plan. In general, development projects are required to design and build project-specific on-site infrastructure that is sized appropriately for anticipated demand. Off-site infrastructure, including treatment facilities, are constructed by the service providers, but may be financed in part through development fees. The potential environmental effects of new or expanded off-site utilities would be considered by the utility provider through separate CEQA review.

Water

Although the SOIA area is included within SCWA's Zone 40, service to the area is not contemplated in the Zone 40 Water Supply Master Plan and demands for the area are not projected in the Urban Water Management Plan. Nevertheless, there is existing SCWA water supply infrastructure and service in close proximity to the site, and SCWA would be the logical municipal water purveyor in the area. The project site is currently included in SCWA's 2030 Study Area.

SCWA is capable of expanding infrastructure and services to provide adequate municipal water services in the SOIA area. Before water is supplied to development in the SOIA area, SCWA would require that the existing Zone 40 Water Supply Master Plan, WSIP, and Urban Water Management Plan are updated or amended. In order for SCWA to update these planning documents, water demand for the area must be calculated, a water source must be contemplated, and water supply infrastructure for the area must be identified (including a Capital Improvement Program and Fee Update). Additional infrastructure required to serve the SOIA area could include a groundwater treatment plant and storage facilities, water wells, and transmission and distribution mains. Area-specific planning would be conducted when service demands require an expansion of services in the area to ensure adequate facilities are available (LAFCo 2016: 4.0-5). SCWA would conduct project-level environmental analysis, if necessary, to analyze specific impacts for construction and operation of new off-site facilities.

Existing water supply facilities near the project site include transmission pipelines (i.e., pipes that are 16 inches or larger) in Bilby Road and Willard Parkway, and the Poppy Ridge well and GWTP near the intersection of Bruceville Road and Poppy Ridge Road north of the project site that is planned for expansion. The nearby Franklin GWTP is also planned for eventual expansion and a pipeline is proposed to extend south along Bruceville Road adjacent to the eastern boundary of the project site under Phases 2 and 3 of the WSIP. The WSIP does not identify any new facilities within the SOIA area (SCWA 2016a).

On-site water systems would be constructed to serve new development could consist of storage tanks, pump stations, and transmission and distribution mains. The City outlines specific requirements to ensure water systems are available to meet demands created by new development (Policy PF-3 of the General Plan). These requirements include demonstrating that on-site and off-site water systems are available to serve proposed development or that new development would contribute its fair share portion for funding new water systems (Policy PF-21 of the General Plan). In addition, the City requires that water supplies are available prior to approval of new development projects (Policy PF-3 of the General Plan). At the time of submittal of any application to annex territory within the SOIA area, the City of Elk Grove would prepare a Plan for Services, as required by Government Code Section 56653 or its successor. The Plan for Services would depict the locations and appropriate sizes of all water system facilities to accommodate the amount of development identified for the annexation territory and demonstrate adequate SCWA off-site water facilities are available to accommodate the amount of development identified in the annexation territory or that fair share funding would be provided for the construction of new or expansion and/or improvement of existing off-site water system facilities with no adverse impacts on existing ratepayers.

The SOIA would not directly require or result in the construction of new utilities. However, revising the City of Elk Grove's SOI would inform future planning efforts so that the anticipated demand from development could be accommodated. Further, as discussed above, the City of Elk Grove requires demonstration that water systems are available to meet demand prior to development, and SCWA would conduct appropriate environmental analyses for construction and operation of new off-site facilities.

Wastewater

The project site currently does not require municipal wastewater services. Existing agricultural and rural residential land uses on the project site are served by individual septic systems. However, the future development of the project site would require municipal wastewater service.

SASD would be the local wastewater collection service provider for development in project site. The project site is within SASD's SOI, and the City of Elk Grove would need to annex the SOIA area into the service area before service is provided. However, the existing residential areas to the north and west of the project site are within the SASD service area and there is existing infrastructure in the area. There are existing large capacity (i.e., 10 inches or larger) wastewater pipelines in Willard Parkway and following Bruceville Road along the western boundary of the project site. The Sewer System Capacity Plan (SASD 2011) identifies a future force main expansion pipeline from the existing pipeline in Willard Parkway to a future expansion pump station located just south of the central portion of the SOIA area. The Interceptor Sequencing Study (Regional San 2013) identifies several options for a force main that would follow Bilby Road along the northern boundary of the project site and extend east to a new pump station.

Further, the project site is within the study area for SASD's 2010 Sewer System Capacity Plan and the Regional San's 2013 Interceptor Sequencing Study. For areas outside of the urbanized area, the 2010 Sewer System Capacity Plan assumed that potential densities could be similar to those projected for near-term urban development. Therefore, an average density of 6 equivalent single-family dwelling units per acre was assumed for these areas, except for the open spaces. At this rate, the project site would be assumed to have approximately 2,874 dwelling units of wastewater generation potential.

According to consultation with SASD conducted in preparation of the draft MSR, and consistent with the 2010 Sewer System Capacity Plan that provides conceptual plans for providing sewer service to the undeveloped areas, approximately two thirds of the SOIA area is planned to be provided sewer relief by connecting to an existing trunk sewer main located in Willard Parkway. The remaining portion of the SOIA area (eastern side) would be required to connect to a future point of connection in Bruceville Road (LAFCo 2016:4.0-13 to 4.0-14).

Development projects are required to design and build project-specific infrastructure, sized appropriately for anticipated demand. These improvements typically consist of underground pipelines that connect to the overall conveyance systems through varying pipeline sizes and pump stations. Developers must complete a sewer study that includes connection points and phasing information to assess the capacity of the existing system to accommodate additional flows (Moore, pers. comm., 2017). SASD staff has indicated that the SASD system should have adequate capacity to meet future demands as a result of appropriate long-term service planning. SASD would issue sewer permits to connect to the system if it is determined that capacity is available and the SOIA area has met all other requirements for service (LAFCo 2016:4.0-14). In addition, the City of Elk Grove outlines specific requirements to ensure wastewater facilities are available to meet demands created by new development (Policy PF-8 of the General Plan). These requirements include demonstrating that on-site and off-site wastewater infrastructure provides sufficient capacity to serve proposed development.

The SRWWTP is permitted to treat an ADWF of 181 mgd, while the facility's 2014 ADWF was approximately 106 mgd. The 181 mgd permitted capacity has been in effect since 1990. While the approved EchoWater project will result in improved effluent water quality, this project does not increase treatment capacity of SRWWTP. In the 1990s and early 2000s, Regional San considered capacity expansion from 181 to 218 mgd ADWF and had flows as high as 155 mgd ADWF, with expectations that treatment needs would increase. Since then, water conservation and a reduction in water use have reversed the growth in wastewater capacity use. Regional San expects per capita consumption to fall 25 percent over the next 20 years through the ongoing installation and use of water meters, as well as compliance with water conservation measures. As such, substantial additional water conservation is expected throughout Regional San's service area, putting off the expectation that the existing 181 mgd ADWF capacity will be exhausted until at least 2050 (Regional San 2014:6-2.). Assuming that all of the water supplied to the SOIA area is converted to wastewater, the area is estimated to generate 901,671 gallons of wastewater each day. This would not substantially affect the remaining capacity of the SRWWTP.

Regional San has completed an Interceptor Sequencing Study that included study of the SOIA area and provides general information about the best way to serve the area, including reevaluating the current alignment and/or need for the South Interceptor and potential interim facilities that may be necessary to provide service. However, Regional San staff has stated that future sewer service to these areas cannot be planned until annexation into Regional San has occurred (LAFCo 2016:4.0-14).

The SOIA would not directly require or result in the construction of new utilities. Regional San and SASD design their sewer systems using predicted wastewater flows that are dependent on growth projections and land use information provided by the applicable land use authorities (Moore, pers. comm., 2017). Although revising the City of Elk Grove's SOI would inform future planning efforts so that the anticipated demand for transmission of wastewater from development could be accommodated, planning related Regional San infrastructure capacity would not occur until annexation.

At the time of submittal of any application to annex territory within the SOIA area, the City of Elk Grove would prepare a Plan for Services, as required by Government Code Section 56653 or its successor. The Plan for

Services would depict the locations and appropriate sizes of all wastewater system facilities to accommodate the amount of development identified for the annexation territory and demonstrate adequate off-site wastewater facilities are available to accommodate the amount of development identified in the annexation territory or that fair share funding will be provided for the construction of new or expansion and/or improvement of existing off-site wastewater system facilities with no adverse impacts on existing ratepayers.

Summary

If future studies indicate that the demand generated from annexation and development of the SOIA area would require off-site utility improvements, such improvements to water and wastewater facilities would be the responsibility of the utility and would be subject to separate environmental review. Implementation of any mitigation measures identified through this process would be the responsibility of the utility, and such measures would be implemented in accordance with the certified CEQA documents. However, physical environmental impacts from construction or operation of off-site improvements could remain significant after implementation of mitigation (i.e., significant and unavoidable), or no feasible mitigation may be available to fully reduce impacts to a less-than-significant level. Potential significant environmental impacts from construction of off-site infrastructure could include, but not limited to, the following:

- ▲ Aesthetics: temporary and/or permanent alteration of public views from construction of infrastructure improvements
- ▲ Air Quality: air pollutant and toxic air contaminant emissions from construction activities that exceed thresholds recommended by the Sacramento Metropolitan Air Quality Management District
- ▲ Archaeological, Historical, and Tribal Cultural Resources: damage or loss of significant cultural resources from construction activities
- ▲ Biological Resources: loss of habitat and direct impacts to special status plant and animal species
- ▲ Greenhouse Gases: temporary emission of greenhouse gases during construction
- ▲ Hazards and Hazardous Materials: potential exposure or release of hazardous materials or contamination during construction
- ▲ Hydrology and Water Quality: construction-related stormwater quality impacts
- ▲ Noise: temporary excessive noise levels during construction on sensitive noise receptors
- ▲ Transportation: temporary disruption of roadways and congestion from construction activities and equipment.

Neither LAFCo nor the City of Elk Grove would have control over the approval, timing, or implementation any facility improvements. This would be a **significant** impact.

Mitigation Measures

As noted above, future analysis by the developer, SCWA, and SASD would determine what off-site improvements are required to service development of the SOIA as part of an annexation request. SCWA and SASD would conduct the appropriate environmental review for these improvements and would adopt mitigation measures to address significant environmental impacts. LAFCo cannot determine what those future off-site improvements may be or require SCWA or SASD to adopt mitigation measures for improvements and impacts that have not been identified. Thus, there are no feasible mitigation measures available to LAFCo to address this impact.

Significance after Mitigation

The impacts of construction or operation of off-site improvements, if required, could result in significant environmental effects. Neither LAFCo nor the City of Elk Grove would have control over the approval, timing, or implementation these improvements. Therefore, the potential impact of constructing new or expanded water or wastewater treatment facilities to serve development of the SOIA area in the future, if required and assuming eventual annexation and development, would be **significant and unavoidable**.

Impact 3.14-2: Require new or expanded entitlements to water.

Presently, there are no public water supply facilities within the SOIA area and water supplies are provided by irrigation wells. There are no changes to land uses proposed as part of this SOIA application. Therefore, the project would not immediately increase the demand for water. Future development of the SOIA area would require new water supply facilities to serve the site. Because there are identified adequate sources of water supply and the City would be required to demonstrate water availability prior to annexation, this impact would be **less than significant**.

Presently, there are no public water supply facilities within the SOIA area and water supplies are provided by irrigation wells. There are no changes to land uses proposed as part of this SOIA application. Therefore, the project would not immediately increase the demand for water supplies.

Based on the acreages of land uses assumed in the conceptual land use plan and the water demand factors used in the *Zone 40 Water System Infrastructure Plan Update* (SCWA 2016a), annual buildout water demand in the SOIA area is estimated to be 1,009.5 afy (Table 3.14-4). The WSIP projects that total water demand in the service area, including water system losses would be 102,400 acre-feet annually in 2052 (Table 3.14-1). Although development of the project site was not considered in the cumulative buildout land use assumptions for the plan, the addition of project water demand (a 1 percent increase) would not drastically change the assumptions used by SCWA, which are updated on a regular basis to reflect changes in land use and consumption rates. If a SRCS recycled water program becomes available in the future, recycled water could be used for parks, landscape corridors, school playing fields and open space areas, which would substantially reduce potable water demand of the project. It is estimated that the SOIA area currently utilizes 765 to 1,615 afy of groundwater for agricultural operations. Thus, the project may result in net increase of 145.5 afy in water demand or a net decrease of 814.6 afy in water demand depending on the demands of future development.

Table 3.14-4 Conceptual Buildout Unit Water Demand for Bilby Ridge SOIA Area

Land Use	Acreage in Conceptual Land Use Plan	Gross Unit Water Demand Factors (acre-feet/acre/year)	Buildout Unit Water Demand (acre-feet/year)
Low Density Residential	409.4	2.13	872.0
Commercial/Office/Business Professional	19.3	2.15	41.5
Commercial	31.6	2.02	62.7
Public Schools	10.0	0.81	8.1
Public Parks	9.0	2.80	25.2
Total			1,009.5

Source: SCWA 2016a

The SSA is currently supplied by surface water from the Franklin Intertie and the Vineyard Surface Water Treatment Plant, groundwater from existing GWTPs and some direct feed wells, and a small amount of recycled water. The SSA has adequately planned supply facilities to be able to address both the wet/average

years and dry years. The excess supply during normal years is projected to range from 140,000 afy in 2020 to 84,600 afy in 2052, and in dry years the excess supply is projected to range between 60,700 afy in 2020 and 11,800 afy in 2052 (SCWA 2016). This illustrates capacity to serve potential future water demand generated by the SOIA area. Although existing information indicates that water supply in Zone 40 will exceed demand by more than the anticipated demand from the development of the SOIA area for the next 35 years, SCWA would need to conduct future water supply assessments and update its water supply master plan to determine if water supplies would meet the demand of development at the time development is proposed.

At the time of submittal of any application to annex territory within the SOIA area, the City of Elk Grove is required to prepare a Plan for Services, as required by Government Code Section 56653 or its successor. The Plan for Services would verify that SCWA water supplies are adequate to serve the amount of future development identified in the annexation territory in addition to existing and planned development under normal, single dry, and multiple dry years. The Plan for Services would demonstrate that the SCWA is a signatory to the Water Forum Agreement and that groundwater would be provided in a manner that ensures no overdraft would occur. Because the City would be required to demonstrate water availability prior to annexation, this impact would be **less than significant**. The reader is referred to Section 3.8, "Hydrology and Water Quality," regarding impacts to groundwater levels and supplies.

Mitigation Measures

No mitigation is required.

Impact 3.14-3: Exceed the capacity of the wastewater treatment provider.

The SRWTP has a design capacity of 181 mgd with the potential to expand to 218 mgd. Future development of the SOIA area according to the conceptual land use plan is estimated to generate less than 1 mgd of wastewater. It is anticipated that the SRWTP would have adequate capacity to treat wastewater flows generated by future development. This impact would be **less than significant**.

The SOIA would not directly result in wastewater production. Rather, by amending the City of Elk Grove's SOI and providing a conceptual land use plan, the project would inform Regional San's long-term planning. This analysis considers the potential effects on utility capacity if the project site is annexed and developed in a manner consistent with the conceptual land use plan.

The project site is within Regional San's SOI. As discussed above, the SRWTP has a design capacity of 181 mgd with the potential to expand to 218 mgd. As of 2015, the SRWTP receives and treats an average of 150 mgd each day. The SRCSD expects that substantial water conservation measures throughout the service area would allow the existing 181 mgd average dry-weather flow capacity to be adequate for at least 40 more years (Regional San 2014:6-2). Development of the SOIA area according to the conceptual land use plan is estimated to generate less than 1 mgd of wastewater. Therefore, it is anticipated that the SRWTP would have adequate capacity to treat wastewater flows generated by future development. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required.

Impact 3.14-4: Generate solid waste that would exceed the permitted capacity of the landfill serving the area.

The SOIA would not change the existing rate of solid waste generation on the project site. If annexation and development occurs in the future, it would be required to be compliant with regulations pertaining to the reduction of solid waste. Based on the current rates of solid waste generation and the capacity of the landfills that serve the area, development of the project site in a manner consistent with the conceptual land use plan would have a **less-than-significant impact** on the permitted capacity of the affected landfills.

The SOIA would not change the existing rate of solid waste generation on the project site. Rather, by amending the City of Elk Grove's SOI and providing a conceptual land use plan, the project would inform the City of Elk Grove's long-term planning. This analysis considers the potential effects on utility capacity if the project site is annexed and developed in a manner consistent with the conceptual land use plan.

Construction of future development could result in site clearing and the generation of various construction-period wastes, including scrap lumber, scrap finishing materials, various scrap metals, and other recyclable and nonrecyclable construction-related wastes. The CALGreen Code (Title 24, Part 11 of the California Code of Regulations) requires all construction contractors to reduce construction waste and demolition debris by 50 percent. Code requirements include preparing a construction waste management plan that identifies the materials to be diverted from disposal by efficient usage, recycling, reuse on the project, or salvage for future use or sale; determining whether materials will be sorted on-site or mixed; and identifying diversion facilities where the materials collected will be taken.

Once built, solid waste collection and disposal for commercial, industrial, and multi-family residential units would be serviced by the current private haulers. It is anticipated that single-family residential customers would be served by the City contractors (LAFCo 2016:4.0-21). Residential solid waste in the City of Elk Grove is disposed of at the Kiefer Landfill and commercial solid waste is primarily disposed of at the Kiefer Landfill, the L and D Landfill, and the Yolo County Landfill. Combined, these landfills have a large volume of landfill capacity (254 million cubic yards) available to serve future development. The closure dates of the Kiefer Landfill, L and D Landfill, and Yolo County Central Landfill are anticipated to be approximately January 1, 2064, January 1, 2023, and January 1, 2080, respectively. Assuming the solid waste generation rates for the City of Elk Grove in 2015, development of the SOIA area according to the conceptual land use plan would generate 14,958 pounds of garbage each day because of residential uses and 57,539 pounds of garbage each day because of employees of commercial, office, and industrial land uses, which would amount to approximately 15,699 cubic yards per year. Thus, the future annexation and development of the SOIA area would not substantially affect the permitted capacities of the landfills that serve the area. This would be a **less-than-significant impact**.

Mitigation Measures

No mitigation is required.